Amendments to the Claims

1-8. (Cancelled)

9. (Currently amended) A method of producing a glass article comprising the steps of:

melting a glass raw material by heating;

homogenizing the molten glass;

forming the homogenized molten glass into a predetermined shape; ~~and~~

cooling the shaped formed glass article to room temperature,

wherein, in at least one of the step of melting a glass raw material by heating and the step of homogenizing the molten glass, a helium gas is brought into contact with the molten glass so that helium is dissolved in a glass article in such a manner that a volume ratio of an isotope of helium with a mass number of 3 to an isotope of helium with a mass number of 4 (0°C, 1 atm) is smaller than a volume ratio of the isotope of helium with a mass number of 3 to the isotope of helium with a mass number of 4 present in the atmosphere (0°C, 1 atm),

wherein the molten glass is melted and homogenized while the molten glass is evaluated for degree of homogeneity by measuring a volume ratio of the isotope of helium with a mass number of 3 to the isotope of helium with a mass number of 4 in the molten glass, a formed glass article, or a glass article; and

setting or changing a production condition for the glass article on the basis of the measured volume ratio.

10. (Currently amended) A method of producing a glass article according to claim 9, ~~characterized in that~~ wherein the helium is dissolved in a glass article in such a manner that the volume ratio of the isotope of helium with a mass number of 3 to the isotope of helium with a mass number of 4 in the glass article is 0.8×10^{-6} or less (0°C, 1 atm) and a total content of the isotope with a mass number of 4 and the isotope with a mass number of 3 is 5.0×10^{-5} to 2 μl/g (0°C, 1 atm).

11. (Cancelled)

12. (Currently amended) A method of producing a glass article according to claim 9, ~~characterized in that~~ wherein the step of homogenizing molten glass ~~is intended for~~ results in homogenizing the molten glass in such a manner that a volume ratio of the isotope of helium with a mass number of 3 to the isotope of helium with a mass number of 4 in a glass article is in a range of 1.0×10^{-9} to 0.8×10^{-6}.